

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of:
Gole, et al.

Confirmation No.: TBA/Parent - 5593

Group Art Unit: TBA/Parent - 2814

Serial No.: TBA/Parent - 09/820,413

Examiner: TBA/Parent - Shrinivas H. Rao

Filed: January 26, 2004

Parent - March 29, 2001

Docket No. 62004-1662

For: **Silicon Based Nanospheres and Nanowires**

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

This information disclosure statement is filed in accordance with 37 C.F.R. §§ 1.56, 1.97, and 1.98, and specifically:

- ☒ under 37 CFR 1.97(b), or
(within Three months of filing national application; or date of entry of international application; or before mailing date of first office action on the merits; whichever occurs last)
- ☐ under 37 CFR 1.97(c) together with either a:
☐ Statement Under 37 C.F.R. 1.97(e), or
☐ a \$180.00 fee under 37 CFR 1.17(p), or
(After the CFR 1.97(b) time period, but before the final office action or notice of allowance, whichever occurs first)
- ☐ under 37 CFR 1.97(d) together with a:
☐ Statement under 37 CFR 1.97(e), and
☐ a \$180.00 petition fee set forth in 37 CFR 1.17(p).
(Filed after final office action or notice of allowance, whichever occurs first, but before payment of the issue fee)

Enclosed is a check in the amount of \$. Please charge \$ to deposit account . At any time during the pendency of this application, please charge any fees required to Deposit Account pursuant to 37 CFR 1.25. The Commissioner is hereby requested to credit any overpayment to Deposit Account No. .

☒ Applicant(s) submit herewith *Form PTO 1449A - Information Disclosure Statement by Applicant* together with copies (where required) of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may or may not be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56. As required by 37 C.F.R. §1.98(a), a legible copy of each document is provided.

☐ A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individual(s) designated in 37 CFR 1.56(c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on the form PTO 1449 and is enclosed herewith.

The following rights are reserved by the Applicant(s): the right to establish the patentability of the claimed invention over any of the listed documents should they be applied as reference, and/or the right to prove that some of these documents may not be prior art, and/or the right to prove that some of these documents may not be enabling for the teachings they purport to offer.

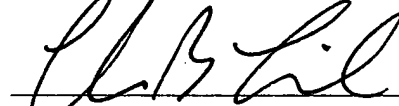
This statement should not be construed as a representation that an exhaustive search has been made, or that information more material to the examination of the present application does not exist. Any statements or identifications regarding the relevance of any portion(s) of cited references should not be construed as a representation that the most relevant portion(s) have been identified, and the absence of such statements or identifications should not be construed as representations that there are no relevant portion(s). The Examiner is specifically requested not to rely solely on the materials submitted herewith. The Examiner is requested to conduct an independent and thorough review of the documents, and to form independent opinions as to their significance.

It is requested that the information disclosed herein be made of record in this application and that the Examiner initial and return a copy of the enclosed PTO-1449 to indicate the documents have been considered.

Respectfully Submitted,

**THOMAS, KAYDEN, HORSTEMEYER
& RISLEY, L.L.P.**

By:



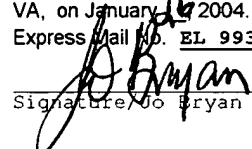
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EXPRESS MAIL

I hereby certify that this correspondence is being deposited with the United States Postal Service as "Express Mail Post Office to Addressee" in an envelope addressed to: Commissioner for Patent, Mail Stop Patent Application, P.O. Box 1450, Alexandria, VA, on January 26, 2004.

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Signature of J. Bryan

Form PTO-1449				Attorney Docket No. 62004-1662		Serial No. TBA	
INFORMATION DISCLOSURE CITATION				Applicant Gole, et al.			
<i>(Use several sheets if necessary)</i>				Filing Date January 26, 2004		Group TBA	

U.S. PATENT DOCUMENTS							
Examiner Initials	Item	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No

OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, etc.)</i>	
A	Gole, Stout, Rauch, Wang; Direct synthesis of silicon nanowires, silica nanospheres, and wire-like nanosphere agglomerates; Applied Physics Letters, vol. 76, no. 17, April 24, 2000, pages 2346-2348
B	Hu, Odom, Lieber; Chemistry and Physics in One Dimension: Synthesis and Properties of Nanowires and Nanotubes, Acc. Chem. Res. 1999, vol. 32, no. 5, 1999, pages 435-445
C	Gole, White; Nanocatalysis: Selective Conversion of Ethanol to Acetaldehyde Using Monoatomically Dispersed Copper on Silica Nanospheres; Journal of Catalysis, pages 2-15
D	Crooks, Zhao, Sun, Chechik, Yeung; Dendrimer-Encapsulated Metal Nanoparticles: Synthesis, Characterization, and Applications to Catalysis; Accounts of Chemical Research, vol. 34, no. 3, March 2001; pages 181-189
E	Kenvin and White; Supported Catalysts Prepared from Mononuclear Copper Complexes: Catalytic Properties; Journal of Catalysis; 1992; pages 81-91

* EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

EXAMINER'S SIGNATURE:	DATE CONSIDERED:
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